

Eucalyptus ambigua DC. (Myrtaceae), the correct name for the Smithton Peppermint of Tasmania

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Introduction

The French botanist J.J.H. de Labillardière was the first to make major collections of Tasmanian plants in two visits (April–May 1792 and January–February 1793) during the voyage led by B. d'Entrecasteaux (Labillardière 1800; Douglas-Hamilton & Bruce 1998). His Tasmanian collections included an unknown number of *Eucalyptus* specimens that were used to name seven species: *E. globulus* Labill. (in 1800); *E. ovata* Labill., *E. viminalis* Labill., *E. cordata* Labill. and *E. amygdalina* Labill. (in 1806); *E. ambigua* DC. (in 1828) and finally *E. pulchella* Desf. (in 1829).

Labillardière (1800) provided a detailed account of the events of the voyage, from which it is obvious that he was a very keen and assiduous botanist. On his first day on shore at Recherche Bay in Tasmania (23rd April 1792), he recorded "I gathered several species of the *eucalyptus*, during this excursion; amongst others, that which White has denominated *eucalyptus resinifera*...". The detail given in Labillardière's journal allows us to precisely fix the time and place of some eucalypt collections. He recorded at some length his collection of *E. globulus* on 6th May 1792, and there can be no doubt that the type material was collected on that day from Recherche Bay. For *E. cordata*, Potts (1988) has provided irrefutable evidence that the type was collected from Penguin Island during the last few days (between the 25th and 28th) of February 1793. However, Labillardière gave us no clues about the location or date of his *E. ambigua* collection.

The history of *Eucalyptus ambigua*

Eucalyptus ambigua was described by A.P. de Candolle in 1828, in volume 3 of the epic *Prodromus systematis naturalis regni vegetabilis*. Candolle's treatment of *Eucalyptus* in the *Prodromus* dealt with all known names, including some whose identity, even then, was unknown or uncertain. While his descriptions are concise, the information conveyed is useful, though often not diagnostic. Most significantly, Candolle consistently stated the source of the specimens used in compiling the descriptions, and sometimes gave short notes about the taxonomic affinity of

Abstract

The original material of *Eucalyptus ambigua* DC. is conspecific with the type of *E. nitida* Hook.f. The name *E. ambigua* is older by almost thirty years, and is therefore the correct name for the Smithton Peppermint. Benthams and Maiden both correctly determined the identity of *E. ambigua*, but the name has been ignored for the last 100 years. *Eucalyptus ambigua* is based on a collection by Labillardière from southern Tasmania. Some eucalypts encountered by Labillardière in Tasmania are discussed.

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the species. In the case of *E. ambigua*, he cited "In Nova-Hollandia. Labillardière. Affinis *E. ligustrinae* et *E. amygdalinae*."

Eucalyptus ambigua was next mentioned by Benth (1867). Benth had a broad concept of *E. amygdalina* that included several taxa now recognised at species rank. He considered *E. tenuiramis* Miq. to be a synonym of *E. amygdalina*. He also reduced J.D. Hooker's *E. nitida* (Hook.f.) Benth. to a variety of *E. amygdalina*, and placed *E. ambigua* as a synonym of *E. amygdalina* var. *nitida*. There are no known authentic specimens of *E. ambigua* at BM or K, and it is clear that Benth never saw any, as he reached his conclusions "from the diagnosis taken from Labillardière's specimen".

Mueller (1880) mentioned *E. ambigua* only in passing, saying that it "may be a West Australian species, the somewhat leathery leaves, the compressed flower stalks and the almost globular fruit not really pointing to *E. amygdalina*".

The discussion by Maiden (1905, p. 159) in his *Critical revision of the genus Eucalyptus* left no stone unturned, as was his usual working method. He stated that he borrowed "the" type of *E. ambigua* from the Candolle herbarium, and considered its identity to be "probably *E. amygdalina*, tending to var. *nitida*, as suggested by Benth". He also reported seeing a Labillardière specimen at P, originating from the Webb herbarium. Of this specimen Maiden stated, "This is *E. amygdalina*, var. *nitida*". Maiden was not content to leave it there. He talked about two further specimens named as *E. ambigua*, neither of them authentic, and for one of which he said "seems to be *E. stricta* Sieb." Maiden concluded his analysis by saying "it may be accepted that *E. ambigua*, DC., is allied to *E. amygdalina*, Labill., var. *nitida*. It may, however, be *E. stricta*, Sieb.: another of the *Renantherae*".

In his *Key to the Eucalypts*, Blakely (1934, p. 315) regrettably distilled from Maiden's discussion "*ambigua* DC. Prod., iii., 219 (1828) = 384, *E. stricta*, Sieb.". More recent authors have continued to honour Blakely's interpretation (e.g. Chippendale 1988; Slee *et al.* 2006). Our current-day knowledge of the distributions of various *Eucalyptus* species makes this synonymy all the more unlikely – *E. stricta* is endemic to the state of New South Wales, while Labillardière (collector of the type of *E. ambigua*) visited only Tasmania and Western Australia.

I have examined some high-quality images of three specimens, all of which are considered to be original material of *E. ambigua*. Two of these specimens are held at G-DC and another is at G. All are in accord with the protologue, and all were presumably available to Candolle when drawing up his description of *E. ambigua*. All three specimens comprise branchlets bearing adult leaves and buds close to maturity, and one of them has some detached fruits in a packet. The leaves are 15–25 mm wide, the buds are clavate, and the hemispherical warty operculum has a tiny mucro. The fruits are 8–9 mm in diameter and are broadest just below the rim. There is no hint of glaucousness on any of the material. I am satisfied that these specimens are conspecific with the type of *E. nitida* Hook.f. In fact, the sheet at G was annotated by G.M. Chippendale in 1973 as "*Eucalyptus nitida* Hook.f. (*E. ambigua* DC. =)". One of the sheets at G-DC (G00131709) is here selected as the lectotype of *E. ambigua*. The formal synonymy is as follows:

***Eucalyptus ambigua* DC., Prodr. 3: 219 (1828).**

Type: New Holland [south-eastern Tasmania], undated [1792 or 1793], J.J.H. Labillardière s.n. (lecto: G-DC, sheet G00131709, here designated, (image at BRI)).

E. nitida Hook.f., *Fl. Tasman.* 1(2): 137 (1856); *E. amygdalina* var. *nitida* (Hook.f.) Benth., *Fl. austral.* 3: 203 (1867); *E. australiana* var. *nitida* (Hook.f.) Ewart, *Fl. Victoria* 833 (1931), *syn. nov.* Type: Tasmania. Circular Head, 21 January 1837, R. Gunn 808 (lecto: K[K000279983], *fide* Chippendale (1988); isolecto: BM, NSW).

E. simmondsii Maiden, *Crit. revis. Eucalyptus* 6: 344 (1923). Type: Tasmania. Smithton, 27 May 1921, J.H. Simmonds s.n. (holo: NSW, *fide* Chippendale (1988)).

Chippendale (1974) listed six syntypes for *E. nitida*. However, he later (Chippendale 1988) cited Gunn's Circular Head collection of 21/1/1837 at Kew, as the holotype. In so doing, he has lectotypified the name. Under Article 9.8 of the Code, the use of the term "holotype" by Chippendale is correctable to "lectotype".

The name change resulting from this investigation is unfortunate, but it is fitting that Candolle and Labillardière receive the recognition that is due to them. It is the fault of neither of these men that

E. ambigua has wallowed in obscurity for so long. The original description was more than adequate for its time and appeared in a very well known publication. Furthermore the type material is of good quality, is well preserved and is accessible.

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